

Building Community as a Prerequisite for Faculty Mentorship in a Liberal Arts Engineering College

Dr. Amal Kabalan, Bucknell University

Amal Kabalan is an Associate Professor of Electrical Engineering and the T. Jefferson Miers Chair at Bucknell University. Her teaching expertise is in electronics and engineering design. Her research focuses on electronic materials and devices, with applications in sustainable and sensor-based technologies. She currently serves as Associate Dean for Inclusive Community in the College of Engineering advancing inclusive excellence in engineering education.

Building Community as a Prerequisite for Faculty Mentorship in a Liberal Arts Engineering College

Abstract

This work in progress (WIP) paper argues that the success of faculty mentorship programs in engineering colleges depends fundamentally on the existence of an inclusive community framework. Traditional approaches to mentorship often emphasize procedural pairings, outcomes, or compliance structures, yet they overlook the social and cultural ecosystem in which mentorship operates. Without a strong foundation of shared purpose and mutual accountability, mentorship programs risk becoming transactional rather than transformative. This paper introduces a community framework that redefines mentorship as a natural outcome of a connected academic community rather than an isolated intervention. The community framework is grounded in three interrelated pillars: shared purpose, which aligns mentorship with collective goals of equity and educational excellence; psychological safety, which allows vulnerability, dialogue, and honest reflection to flourish; and distributed leadership, which empowers faculty at all levels to contribute to the mentorship culture. Drawing on theories of belonging, organizational learning, and inclusive leadership, the paper conceptualizes community as both the precondition and continual engine of mentorship.

Within this framework, the faculty mentorship program is intentionally situated as a living practice that reinforces and evolves with the community. Rather than pairing individuals through formal assignments alone, the program weaves mentorship into ongoing structures of connection: peer dialogue circles, collaborative writing groups, transparent workload discussions, and recognition systems that value relational and inclusive work. These mechanisms position mentorship at the intersection of individual growth and collective well-being, ensuring that the benefits extend beyond mentor–mentee relations to shape departmental cultures.

By integrating mentorship within a broader community framework, the paper discusses how relational equity becomes the condition for sustained engagement and institutional transformation. Community thus functions simultaneously as the soil that nourishes mentoring relationships and the structure that sustains them over time.

Introduction

Mentorship has long been recognized as a cornerstone of faculty development and retention in higher education [1-3]. Within engineering colleges, however, mentorship programs frequently emerge as administrative interventions such as formal pairings or orientation sessions rather than as expressions of a shared community ethos [4-6]. While such programs can support career advancement and professional socialization, their

success often depends less on the existence of a matching system and more on the health of the organizational culture in which mentoring occurs [7]. This work-in-progress paper argues that sustainable mentorship in engineering education must be grounded in an inclusive community framework; one that centers shared purpose, psychological safety, and distributed leadership as the conditions under which mentoring relationships can thrive.

Engineering colleges face distinctive cultural challenges that complicate mentorship. Competitive academic environments, heavy workloads, and hierarchical norms can constrain open dialogue and collegial exchange [8-11]. These dynamics can be especially isolating for women, minoritized faculty, and those engaged in community-oriented or equity-focused scholarship [12-15]. As a result, mentorship efforts that focus narrowly on productivity or promotion criteria risk reproducing inequities rather than dismantling them. A community-based approach reframes mentorship as a relational process that arises naturally from the social fabric of an inclusive academic environment.

The framework proposed in this paper positions community as both the precondition and the engine of mentorship. Drawing on theories of belonging [16], organizational learning [17], and inclusive leadership [18], the model conceptualizes mentorship not as a discrete intervention, but as a living practice embedded in ongoing structures of connection (peer dialogue circles, collaborative writing groups, transparent workload conversations, and recognition systems) that value relational work. These mechanisms transform mentorship from a transactional pairing into a collective process of mutual growth. Within this view, relational equity (the quality of mutual respect, trust, and shared agency among colleagues) emerges as the foundation for sustained engagement and institutional transformation.

By situating mentorship within a community framework, engineering colleges can move from viewing mentoring as an individual responsibility to understanding it as a shared institutional practice that cultivates inclusion, learning, and flourishing. This approach seeks not only to strengthen faculty development, but also to reimagine academic culture as a site of collective well-being and innovation.

Theoretical Foundations

The proposed community framework redefines mentorship as a dynamic system embedded within the broader relational and cultural structures of an academic institution. Rather than positioning mentorship as a stand-alone mechanism for professional development, this approach situates it within a living ecosystem of shared values, mutual learning, and collective responsibility. In this view, mentorship thrives not because of administrative structure alone, but because of the relational infrastructure that supports trust, vulnerability, and belonging [19-20].

1. Shared Purpose

Shared purpose aligns mentoring with the institution's collective goals of educational excellence and equity. Traditional faculty mentoring models often operate through transactional exchanges such as career advice, publication guidance, or promotion preparation without an explicit articulation of shared mission. In contrast, a community framework positions mentoring as a form of civic participation within the academic community [21]. When mentors and mentees engage with a common sense of purpose, mentoring becomes a collaborative process that links individual success to the flourishing of the community. This alignment transforms mentorship from an act of service into a practice of shared leadership and institutional stewardship.

2. Psychological Safety

The second pillar, psychological safety, is essential to cultivating vulnerability, creativity, and honest dialogue among faculty members. Edmondson defines psychological safety as the belief that one can take interpersonal risks such as asking for help or admitting uncertainty without fear of negative consequences [22]. In academic environments marked by competition or hierarchy, psychological safety allows mentorship to move beyond evaluation and toward authentic exchange. Mentoring relationships that are grounded in safety foster reflective practice, empathy, and mutual growth [23]. Within a community framework, these conditions are cultivated collectively, not individually through peer dialogue circles, inclusive discussions, and transparent workload conversations.

3. Distributed Leadership

Distributed leadership serves as the connective tissue of the community framework. When leadership is shared across levels of faculty and staff, mentorship ceases to be the responsibility of a select few and becomes a collective practice. This decentralization not only democratizes the flow of knowledge, but also validates diverse forms of expertise whether it is pedagogical, cultural, or emotional. In distributed systems, each faculty member contributes to the mentoring ecosystem by modeling collegiality, offering feedback, and recognizing the relational work that sustains the institution. Such leadership-by-participation transforms mentorship into an emergent property of community rather than a top-down initiative.

Together, these three pillars (shared purpose, psychological safety, and distributed leadership) form a conceptual architecture through which mentorship becomes both a process and a practice of the community. Within this structure, relational equity functions as the feedback mechanism that reinforces connection, ensuring that mentorship not only supports individual growth but also advances institutional learning and inclusion.



Figure 1: Three pillars of the mentorship conceptual framework

Application in Practice: Situating Mentorship within Community Structures

Translating the community framework into practice requires designing institutional spaces where mentorship emerges organically from ongoing relationships rather than being confined to formal pairings. Within the context of an engineering college, this shift calls for aligning mentoring activities with existing structures of collaboration, dialogue, and shared governance. The approach described here reflects an evolving ecosystem of initiatives including peer dialogue circles, writing groups, and inclusive workload discussions that operationalize the three pillars of shared purpose, psychological safety, and distributed leadership.

1. Dialogue Circles and Collective Reflection

Peer dialogue circles function as the community's conversational infrastructure. These facilitated sessions bring together faculty and staff across disciplines to explore themes of belonging, workload, and professional identity in a psychologically safe environment. Rather than focusing on problem-solving alone, circles emphasize reflective listening and storytelling which are practices that humanize institutional life and cultivate empathy. Over time, participants begin to mentor one another informally, exchanging strategies, vulnerabilities, and insights that extend beyond their own departments. This distributed mentorship strengthens social cohesion and builds the trust necessary for more formal mentor–mentee relationships to flourish.

2. Collaborative Writing and Learning Groups

Collaborative writing groups offer another mechanism through which mentorship becomes embedded in community practice. These groups which are often interdisciplinary and cross-rank, serve as living laboratories for peer learning, feedback, and accountability. They operationalize shared purpose by centering the collective goal of

scholarly growth while normalizing the challenges of academic writing and balancing workload. In these spaces, mentorship circulates horizontally rather than hierarchically: senior faculty model transparency about failure and revision, while junior faculty contribute emerging methods and perspectives. The result is a micro-community of mutual support that aligns professional development with institutional values of inclusion and learning [24-25].

3. Transparent Workload and Recognition Practices

A critical application of the framework lies in integrating mentorship into conversations about workload and recognition. Faculty often cite lack of time and invisible labor as barriers to mentoring engagement, particularly among women and faculty of color [26]. To address this, departments are encouraged to make mentoring and community-building visible in workload documents and annual reviews. These discussions create distributed leadership opportunities: each faculty member assumes a role in shaping equitable expectations and recognizing relational contributions. As mentorship becomes embedded in evaluation systems, it is reframed not as “extra service” but as central to academic life and institutional sustainability.

Taken together, these initiatives create a mentorship ecosystem that adapts as the community evolves. Feedback loops from dialogue circles inform writing group practices; mentoring successes inform workload policy revisions. The faculty mentorship program thus becomes a living practice, one that continually reshapes itself through reflection and participation. In this model, community is not merely the backdrop for mentorship; it is both the soil that nurtures it and the structure that sustains it.

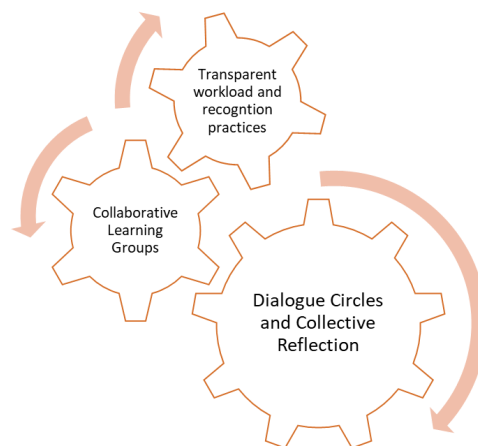


Figure 2: Initiatives of a mentorship ecosystem.

Assessment

The assessment method that will be used is not a single-format approach, but rather a continuous, feedback-driven process embedded within the mentorship ecosystem itself. Central to this approach are observations from dialogue circles, which function as sites of qualitative assessment where participants reflect on experiences of belonging, workload, and mentoring relationships. Insights generated through these conversations are used to iteratively refine collaborative writing groups and college practices, ensuring that the program remains responsive to participant needs. In this model, effectiveness is observed through evolving patterns of engagement, including increased cross-disciplinary interaction, the development of informal mentoring networks, and greater openness in discussing professional challenges such as failure, revision, and identity.

At the same time, this assessment strategy acknowledges the limitations of relying solely on emergent, qualitative indicators. To strengthen the evaluation process, a mixed-methods design will be incorporated to systematically examine measurable outcomes. These include faculty satisfaction, retention, promotion rates, and perceptions of accountability and equity. Data will be collected through a combination of surveys and interviews allowing for triangulation and a more comprehensive understanding of program impact.

Progress

To begin building this environment, we launched a set of community-based practices designed to weave mentorship into everyday academic life. Throughout the fall semester, we hosted monthly writing groups, innovation talks, and tea gatherings, each serving as a space for relationship-building, reflection, and cross-departmental exchange. Attendance has been positive, with participants consistently engaging in conversations that extend beyond their immediate departments and roles. These gatherings have also created informal mechanisms for feedback, allowing faculty to surface ideas, share concerns, and contribute to an evolving culture of trust and collaboration.

The progress to date indicates that mentorship is already taking shape as a “living practice” rooted in community rather than isolated mentor–mentee assignments. Early observations suggest that these ongoing structures of connection have the potential to support a shift toward a cohesive academic culture. As we continue to monitor participation and qualitative feedback, we expect to gain clearer insights into how these community-driven practices influence mentorship behaviors, faculty well-being, and departmental climate across the college. This emerging evidence affirms the central premise: community is both the soil that nurtures mentoring relationships and the structure that sustains them over time.

References

- [1] M. Huerta, J. London, and A. McKenna, "Engineering Deans' Perspectives on the Current State of Faculty Development Programs in Engineering Education," *International Journal of Engineering Education*, vol. 38, no. 4, pp. 1073–1091, 2022.
- [2] H. Pho, "Building Effective Mentoring Relationships: Advancement of Mentoring Practice Program for Engineering Faculty Advisors and Doctoral Student Advisees," paper presented at the ASEE Annual Conference & Exposition, 2022.
- [3] S. R. Rinfret, S. L. Young, and B. D. McDonald III, "The importance of mentorship in higher education: An introduction to the symposium," *Journal of Public Affairs Education*, vol. 29, no. 4, pp. 398-403, 2023.
- [4] M. Huerta, R. S. Harichandran et al., "Engineering Deans' Perspectives on the Current State of Faculty Development Programs in Engineering Education," *International Journal of Engineering Education*, vol. 38, no. 4, pp. 1074-1086, 2022.
- [5] H. Pho, "Building Effective Mentoring Relationships: Advancement of Mentoring Practice Program for Engineering Faculty Advisors and Doctoral Student Advisees," in *ASEE 2022 Conference*, 2022.
- [6] S. R. Rinfret, "The Importance of Mentorship in Higher Education," *Higher Education Review*, vol. 55, no. 3, pp. 345-364, 2023.
- [7] L. T. d. T. Eby, T. D. Allen, B. J. Hoffman, L. E. Baranik, J. B. Sauer, S. Baldwin, M. A. Morrison, K. M. Kinkade, C. P. Maher, S. Curtis, and S. C. Evans, "An interdisciplinary meta-analysis of the potential antecedents, correlates, and consequences of protégé perceptions of mentoring," *Psychological Bulletin*, vol. 139, no. 2, pp. 441–476, 2013.
- [8] K. Berger, L. B. Bairaktarova, and D. M. Borkowski, "Faculty sub-cultures in engineering and their implications for faculty development," *Cultural Keys to Engineering Education*, 2020.
- [9] M. Huerta, "Engineering Deans' Perspectives on the Current State of Faculty Development in Engineering Colleges," *International Journal of Engineering Education*, vol. 38, no. 4, pp. 1061–1072, 2022.
- [10] K. J. Cross, "Building cultures of collaboration that promote instructional innovation in STEM faculty," *Studies in Engineering Education*, vol. 1, no. 2, 2021. doi: 10.21061/see.48.
- [11] M. A. Alarcón, "Ethical practices and tips for improving engineering mentoring," *Proceedings of the ASEE Annual Conference & Exposition*, 2022.

- [12] R. E. Zambrana, M. A. Ray, M. Espino, C. Castellanos, B. Miranda, and J. D. Pratt, "Don't Leave Us Behind': The Importance of Mentoring for Underrepresented Minority Faculty," *American Educational Research Journal*, vol. 52, no. 1, pp. 40–72, 2015.
- [13] Cornell University, "Best Practices in Faculty Mentoring," Faculty Development & Diversity Office, 2022.
- [14] R. Deanna, M. A. Dawson, and J. L. Foster, "The importance of diverse networks in academic mentoring," *Nature Communications*, vol. 13, no. 1320, 2022.
- [15] D. Miller, J. T. Lawrence, and K. T. Harris, "Supporting Inclusive Excellence through Community-Engaged Scholarship," University of Richmond, 2018.
- [16] T. L. Strayhorn, *College Students' Sense of Belonging: A Key to Educational Success for All Students*, 2nd ed. New York, NY, USA: Routledge, 2018.
- [17] P. M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York, NY, USA: Doubleday, 1990.
- [18] I. M. Nembhard and A. C. Edmondson, "Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams," *J. Organizational Behavior*, vol. 27, no. 7, pp. 941–966, 2006.
- [19] Bensimon, E. M. (2007). "The underestimated significance of practitioner knowledge in the scholarship on student success". *The Review of Higher Education*, 30(4), 441–469.
- [20] R. Bolden, "Distributed leadership in organizations: A review of theory and research," *International Journal of Management Reviews*, vol. 13, no. 3, pp. 251–269, 2011.
- [21] Buell, C. (2020). Building communities of trust in faculty mentorship. "Innovative Higher Education", 45(6), 525–538.
- [22] A. C. Edmondson, "Psychological Safety and Learning Behavior in Work Teams," *Administrative Science Quarterly*, vol. 44, no. 2, pp. 350–383, Jun. 1999.
- [23] C. Harrison and H. Hasan, "The dynamics of relational mentoring: Trust, dialogue, and reflective growth," *Studies in Higher Education*, vol. 44, no. 5, pp. 872–886, 2019.
- [24] R. Boice, *The New Faculty Member: Supporting and Fostering Professional Development*. San Francisco, CA: Jossey-Bass, 1992.

[25] E. Wenger, *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, U.K.: Cambridge Univ. Press, 1998.

[26] J. Misra, J. H. Lundquist, E. Holmes, and S. Agiomavritis, *Equity-Minded Faculty Workloads: What We Can and Should Do Now*. Amherst, MA: Univ. of Massachusetts ADVANCE Project, 2021.